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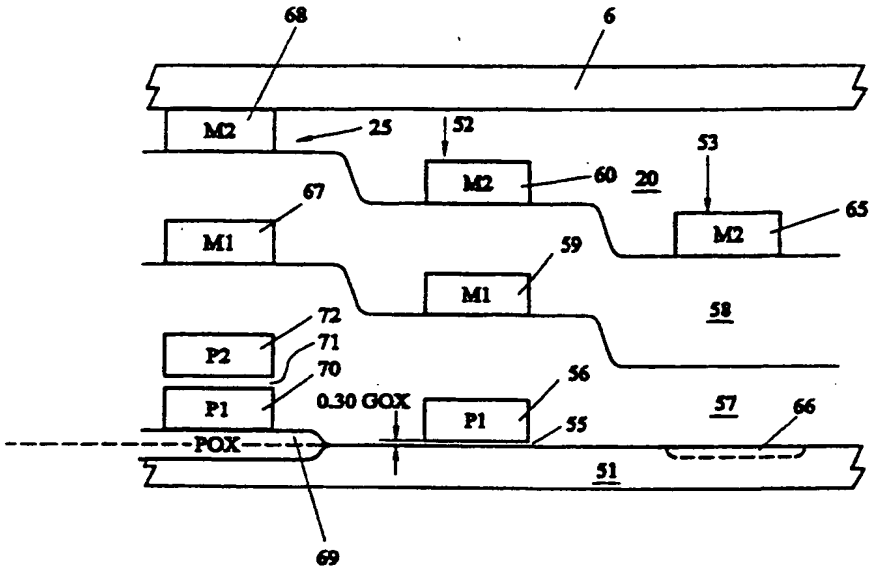
(54) Title: ACTIVE SEMICONDUCTOR BACKPLANE



(57) Abstract

An active semic nductor backplane is disclosed comprising an array of addressable active elements (52) on a semiconductor substrate (51) for selectively energising respective first electrodes (65) of the array, for example in a liquid crystal matrix cell. To reduce photo–induced degradation of images produced thereby (a) at least part of the region beneath a first electrode is adapted to act as a capacitor, for example a depletion layer (66) acting as a reverse biased diode, and/or (b) substantially the whole of each active element is covered by a metallic conductor (59, 60 – coupled to row and column conductors). In a variant of (b) the array of active elements may be covered by an insulating layer, and each active element is c nnected to a metal electrode on the insulating layer, the array of said metal electrodes thus formed covering more than 65 % of the area of said array.